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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,809	12/14/2000	Ichiro Anzai	3169.64972	8852
24978	7590	07/15/2004	EXAMINER	
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			LI, ZHUO H	
			ART UNIT	PAPER NUMBER
			2186	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,809

Applicant(s)

ANZAI ET AL.

Examiner

Zhuo H Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/13/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement filed on March 13, 2001 has been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (US PAT. 6,526,489 hereinafter Kikuchi) in view of Kon (US PAT. 6,249,838).

Regarding claim 1, Kikuchi discloses a storage apparatus (101, figure 1) capable of using a storage medium having at least a first region (105, figure 1) for storing therein data and a

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second region (104, figure 1) for storing therein both use permission discrimination information indicative of permission of a predetermined access operation and use limit information with respect to the store medium (col. 3 line 66 through col. 4 line 50), i.e., storage medium (101, figure 1) comprising a data storage unit (105, figure 1) for storing data to be accessed to a host device, the address registration unit (104, figure 1) storing the host address of each host device has been registered for authorizing access to determining whether or not the particular host device has access authorization, in addition, Kikuchi discloses the storage apparatus comprising a reading unit (102, figure 1) for reading the use limit information for the second region of the storage medium prior to an access to the storage medium (col. 4 lines 6-39), a collating unit (103, figure 1) for collating use permission discrimination information provided for a comparison purpose with the use permission discrimination information read out from the second region of the storage medium in the case that the use limit information indicates an access not-allowed condition (col. 4 lines 6-50 and col. 6 line 65 through col. 7 line 29). Kikuchi differs from the claimed invention in not specifically teaches the storage apparatus comprising a writing unit for rewriting the use limit information into such information indicative of an access allowed condition when it is confirmed by the collation that the former use permission discrimination information coincides with the latter use permission discrimination information read out from the second region. However, Kon teaches the flash memory (112, figure 1) comprising a data storage unit (144, figure 1), and separate storage device (142, figure 1) which storing remaining-expected-lifetime information (REL) of the flash memory, wherein the REL information is including the maximum number of permissible erasures for the flash memory which manufacture, user or system administrator, (col. 4 lines 7-61 and col. 6 line 38 through

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col. 7 line 21), in addition, Kon teaches the permission erasures number remaining will be decremented, and every time when the erase command is requested, the REL logic (226, figure 2) will send the command to compare and determine whether the value currently in the counter is less than a warning, if it is, the data storage unit is disabled and cause the requestor to refuse to provide any control signals to the flash memory (col. 7 line 22 through col. 46). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the storage system of Kikuchi in having a writing unit for rewriting the use limit information into such information indicative of an access allowed condition when it is confirmed by the collation that the former use permission discrimination information coincides with the latter use permission discrimination information read out from the second region, as per teaching by the storage medium of Kon, because it protects and permits reliable information regarding expected lifetime of a device to be used.

Regarding claim 2, Kon disclosures the storage apparatus wherein the writing unit rewrites the use limit information into such information indicative of an access not-allowed condition when the use of the storage medium is ended (col. 7 line 22 through col. 8 line 46).

Regarding claim 3, Kon disclosures the storage apparatus wherein the use limit information is information used to define the number of times used (col. 6 line 64 through col. 7 line 41).

Regarding claims 4-5, Kon disclosures the storage apparatus wherein in the case that the use limit information indicates an access allowed condition, the storage apparatus permits a predetermined access to the storage medium, and the use permission discrimination information contains such information for discriminating at least one of access allowed conditions of

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recording and reproducing operations with respect to a predetermined region of the first region (col. 7 line 36 through col. 9 line 4).

Regarding claim 6, Kon disclosures the storage apparatus further comprising an access control unit (146, figure 1) for permitting an access operation based upon the use permission discrimination information and the use limit information, which correspond to an access instruction of the storage medium in the case that plural sets of the use permission discrimination information and the use limit information are set to the second region (col. 5 lines 27-66).

Regarding claim 7, the limitation of the claims are rejected as the same reasons set forth in claim 1.

Regarding claim 8, Kon disclosures the storage apparatus wherein when the use limit number information is invalidated, the rewrite control unit performs such a control that the use limit number information is rewritten into a practically very large value (6 line 63 through col. 8 line 46).

Regarding claim 9, the limitation of the claims are rejected as the same reasons set forth in claims 4-5.

Regarding claim 10, the limitation of the claims are rejected as the same reasons set forth in claim 6.

Regarding claim 11, the limitation of the claims are rejected as the same reasons set forth in claim 1.

Regarding claim 12, the limitation of the claims are rejected as the same reasons set forth in claim 6.

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Regarding claim 13, the limitation of the claims are rejected as the same reasons set forth in claim 1.

Regarding claim 14, the limitation of the claims are rejected as the same reasons set forth in claim 6.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kamano et al. (US PAT. 6,606,695) disclosures method and apparatus for controlling access to storage device wherein the storage regions under command of a storage controller can be simply enabled and disabled to access to by automatically registering connected host computers (col.1 line 65 through col. 2 line 9).

Shirai et al. (US PAT. 6,643,085) disclosures data processing apparatus and access control method wherein an accessible count information which is the number of accessible times for recording medium is recorded on an additional recording dedicated area in the recording medium (abstract).


Moran (US PAT. 6,324,537) disclosures device system and method for data access control which enable various types of permissions to be set for determining access to the stored data (abstract).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhuo H Li whose telephone number is 703-305-3846. The examiner can normally be reached on Tue-Fri 9:00 a.m. to 6:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 703-305-3821. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zhuo H. Li 


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MATTHEW KIM
SUPERVISORY PATENT EXAMINER
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